**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES**

In re Application of	:	Customer Number: 46320
	:	
John HIND, et al.	:	Confirmation Number: 5123
	:	
Application No.: 10/047,860	:	Group Art Unit: 2165
	:	
Filed: January 15, 2002	:	Examiner: N. Abel-Jalil
	:	
For: EDGE DEPLOYED DATABASE PROXY DRIVER		

SUPPLEMENTAL APPEAL BRIEF

Mail Stop Appeal Brief - Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

This Supplemental Appeal Brief is submitted, pursuant to 37 C.F.R. § 41.39(b)(2), in support of the Notice of Appeal filed March 28, 2006, in response to the Pre-Appeal Brief Conference decision dated April 25, 2006, and in response to the Examiner reopening prosecution in the Office Action dated August 7, 2006, wherein Appellants appeal from the Examiner's rejection of claims 1-2, 4-7, 9-10, 13-14, and 16-17.

I. REAL PARTY IN INTEREST

This application is assigned to IBM Corporation by assignment recorded on January 15, 2002, at Reel 012517, Frame 0361.

II. RELATED APPEALS AND INTERFERENCES

Appellants are unaware of any related appeals and interferences.

III. STATUS OF CLAIMS

Claims 1-19 are pending in this Application. Claims 3, 8, 11-12, 15, and 18-19 have been indicated as being allowable. Claims 1-2, 4-7, 9-10, 13-14, and 16-17 have been four-times rejected. It is from the multiple rejections of claims 1-2, 4-7, 9-10, 13-14, and 16-17 that this Appeal is taken.

IV. STATUS OF AMENDMENTS

The claims have not been amended subsequent to the imposition of the reopening of prosecution and the Fourth Office Action dated August 7, 2006 (hereinafter Fourth Office Action).

V. SUMMARY OF CLAIMED SUBJECT MATTER

Independent claims 1, 6, and 13 are respectively directed to a system, method, and machine readable storage for accessing a database server. Referring to claim 1, Figure 1 and pages 9-11 of Appellants' specification, a database access system is disclosed. The database access system includes an universal database connectivity driver 180, a database proxy driver 170, and a database driven application 160 (page 9, lines 21-22 of Appellants' disclosure). The universal database connectivity driver 180 has a first exposed interface through which access to a database server 190 can be provided (page 3, line 13; page 10, lines 15-17). The database proxy driver 170 is registered with the universal database connectivity driver 180, and the database proxy driver 170 has a second exposed interface which conforms with the first exposed interface of the universal database connectivity driver 180 (page 3, line 13; page 10, lines 10-11, page 11, lines 7-9). The database proxy driver 170 has a configuration for invoking at least one auxiliary

task in addition to providing access to the database server 190 through the first exposed interface of the universal database connectivity driver 180 (page 10, lines 12-14). The database driven application 160 is programmatically linked to the database proxy driver 170 (page 9, lines 21-22).

Referring to claims 6 and 13 and Figure 3, a database access method is disclosed. In blocks 308, 310, a database connectivity request is received through a corresponding first exposed database connectivity method from a database driven application (page 13, lines 1-3). In block 314, the database connectivity request is forwarded to an underlying database connectivity driver through a corresponding second exposed method having a method prototype which matches a method prototype of the first exposed database connectivity method (page 13, lines 6-10). In block 312, at least one auxiliary task is performed in addition to forwarding the database connectivity request (page 13, lines 4-6).

VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

1. Claims 6 and 13 were rejected under 35 U.S.C. § 101; and

1. Claims 1-2, 4-7, 9-10, 13-14, and 16-17 were rejected under 35 U.S.C. § 102 for anticipation based upon McHenry et al., U.S. Patent Publication No. 2003/0115281 (hereinafter McHenry).

VII. ARGUMENT

THE REJECTION OF CLAIMS 6 AND 13 UNDER 35 U.S.C. § 101

For convenience of the Honorable Board in addressing the rejections, claim 13 stands or falls together with independent claim 6.

Not only does the Examiner fail to tie the rationale for rejecting claims 6 and 13 to any case law or even the latest version of the "Interim Guidelines for Examination of Patent Applications for Patent Subject Matter Eligibility"[1], the Examiner's rejection claims 6 and 13 is based upon rationale that has been refuted by both the Board and by the Federal Circuit.

With regard to claim 6, there is no requirement that a method, which can be performed by a computer, must be tied to a computer or storage. The U.S. Patent Office has already issued thousands, if not tens of thousands of patents, which include similar types of claims since the Federal Circuit's decision of State Street Bank & Trust Co. V. Signature Financial Group, Inc.[2] Although issued prior the State Street Bank decision, reference is made to U.S. Patent No. 5,333,184 (hereinafter the '184 patent). Claim 1 of the '184 patent is reproduced below:

> 1.   A method for use in a telecommunications system in which interexchange calls initiated by each subscriber are automatically routed over the facilities of a particular one of a plurality of interexchange carriers associated with that subscriber, said method comprising the steps of:
>
> generating a message record for an interexchange call between an originating subscriber and a terminating subscriber, and
>
> including, in said message record, a primary interexchange carrier (PIC) indicator having a value which is a function of whether or not the interexchange carrier associated with said terminating subscriber is a predetermined one of said interexchange carriers.

Upon reviewing this claim, it is readily apparent to a layman in the art that all of the method steps recited in this claim could be performed by a computer. However, upon reviewing this claim, "there is no hardware or storage tied to the claimed steps," as required by the Examiner,

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[1] Official Gazette Notices, November 22, 2005.
[2] 149 F.3d 1368, 47 USPQ2d 1596 (Fed. Cir. 1999).

"in order to realize their functionality." Thus, if the Examiner's analysis on page 3 of the Fourth Office Action was followed at the time the '184 patent was examined, then this claim would have been rejected under 35 U.S.C. § 101.

Appellants have referred to the '184 patent because this patent was the subject of the decision by the Federal Circuit in AT&T Corp. v. Excel Communications, Inc.[3] The conclusion of the Federal Circuit with regard to the '184 patent is "we find that the claimed subject matter is properly within the statutory scope of 101." Thus, the Examiner's requirement that there must be hardware or storage tied to the claimed method steps directly contradicts the decision by the Federal Circuit that the claimed subject matter recited in the '184 patent is directed to statutory subject matter. Moreover, the Examiner has failed to distinguish between the present claims and the claims of the '184 patent so as to support a finding that the present claims are not directed to statutory subject matter.

With regard to claim 13, the Examiner asserted that the phrase "for" do not carry patentable weight. However, as further argued by Appellants below, Appellants respectfully submit that the Examiner is incorrect in that assertion. The Examiner also asserted that "[i]instructions must be stored and executed by a computer or processor in order to realize their functionality." However, as noted above, the Federal Circuit's decision in AT&T Corp. v. Excel Communications, Inc. does not support that assertion.

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[3] 172 F.3d 1352, 50 USPQ2d 1447 (Fed. Cir. 1999).

In <u>State Street Bank and Trust Company v. Signature Financial Group, Inc.</u>,[4] the court set

forth the criteria for establishing statutory subject matter under 35 U.S.C. § 101 as follows:

> The question of whether a claim encompasses statutory subject matter should not focus on <u>which</u> of the four categories of subject matter a claim is directed to —process, machine, manufacture, or composition of matter—but rather on the essential characteristics of the subject matter, in particular, its practical utility. Section 101 specifies that statutory subject matter must also satisfy the other "conditions and requirements" of Title 35, including novelty, nonobviousness, and adequacy of disclosure and notice. <u>See</u> <u>In re Warmerdam</u>, 33 F.3d 1354, 1359, 31 USPQ2d 1754, 1757-58 (Fed. Cir. 1994). For purpose of our analysis, as noted above, claim 1 is directed to a machine programmed with the Hub and Spoke software and admittedly produces a "useful, concrete, and tangible result." <u>Alappat</u>, 33 F.3d at 1544, 31 USPQ2d at 1557. This renders it statutory subject matter, even if the useful result is expressed in numbers, such as price, profit, percentage, cost, or loss.

Thus, as articulated above, the test for determining whether subject matter is patentable

under 35 U.S.C. § 101 involves deciding if the subject matter produces a "useful, concrete, and

tangible result."

Appellants have established utility

A discussion of the procedural considerations regarding a rejection based upon lack of

utility (i.e., 35 U.S.C. § 101) is found in M.P.E.P. § 2107.02. Specifically, M.P.E.P. § 2107.02(I)

states that:

> regardless of the category of invention that is claimed (e.g., product or process), an applicant need only make one credible assertion of specific utility for the claimed invention to satisfy 35 U.S.C. 101 and 35 U.S.C. 112

In the first full paragraph on page 9 of the Appellants' disclosure, Appellants stated the

following:

> Importantly, unlike prior art database drivers which merely facilitate and control access to a database server, in the proxy data database driver of the present invention, not only can the proxy driver facilitate and control access to the database server, but also the proxy driver can initiate and, optionally, perform the edge processing tasks responsive to receiving a data request. Finally, the interface to the proxy database driver can conform to the interface of an underlying database connectivity driver, for example ODBC or JDBC. In this way, an application can be configured to

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[4] 149 F.3d 1368, 47 USPQ2d 1596 (Fed Cir. 1998).

> operate with the proxy database driver merely be substituting a reference to the underlying database connectivity driver with a reference to the proxy database driver.

Appellants, therefore, have asserted a credible utility. As noted in M.P.E.P. § 2107.02(III)(A), the Court of Customs and Patent Appeals in <u>In re Langer</u>[5] stated the following:

> As a matter of Patent Office practice, a specification which contains a disclosure of utility which corresponds in scope to the subject matter sought to be patented <u>must</u> be taken as sufficient to satisfy the utility requirement of § 101 for the entire claimed subject matter <u>unless</u> there is a reason for one skilled in the art to question the objective truth of the statement of utility or its scope. (emphasis in original)

Since a credible utility is contained in Appellants' disclosure, the utility requirement of 35 U.S.C. § 101 (i.e., whether the invention produces a useful, concrete, and tangible result) has been met.

Therefore, Appellants respectfully submit that the Examiner's rejection of claims 6 and 13 under 35 U.S.C. § 101 is not proper.

THE REJECTION OF CLAIMS 1-2, 4-7, 9-10, 13-14, AND 16-17 UNDER 35 U.S.C. § 102 FOR ANTICIPATION BASED UPON MCHENRY

For convenience of the Honorable Board in addressing the rejections, claims 2, 4-7, 9-10, 13-14, and 16-17 stand or fall together with independent claim 1.

<u>Examiner has not established the provisional application identically discloses claimed invention</u>

The filing date of the present application is January 15, 2002, whereas the filing date of McHenry is August 6, 2002. Therefore, the Examiner cannot rely upon the disclosure of McHenry, but instead, the Examiner must be relying upon the disclosure in U.S. Provisional Application No. 60/340,332 (hereinafter the '332 provisional application), upon which McHenry claims priority, since the filing date for the '332 provisional application is December 13, 2001,

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[5] 503 F.2d 1380, 1391 USPQ 288, 297 (CCPA 1974).

which is prior to the filing date of the present application. As stated in M.P.E.P. § 2136.03(III), entitled "PRIORITY FROM PROVISIONAL APPLICATION UNDER 35 U.S.C. 119(e)":

> The 35 U.S.C. 102(e) critical reference date of a U.S. patent or U.S. application publications and certain international application publications entitled to the benefit of the filing date of a provisional application under 35 U.S.C. 119(e) is the filing date of the provisional application with certain exceptions <u>if the provisional application(s) properly supports the subject matter relied upon to make the rejection in compliance with 35 U.S.C. 112, first paragraph.</u> (emphasis added)

Upon reviewing the '332 provisional application, Appellants respectfully submit that the '332 application <u>fails</u> to support the subject matter relied upon by the Examiner in making the rejection of claims 1-2, 4-7, 9-10, 13-14, and 16-17.

For example, in the statement of the rejection, the Examiner relies on paragraph [0040] of McHenry, which refers to Fig. 4 of McHenry. However, a Fig. 4 does not exist in the '332 provisional application. Moreover, the Examiner also refers to paragraphs [0013], [0030], [0031], and [0032], but upon reviewing McHenry, Appellants are unable to determine exactly where all the teachings found in these paragraphs are supported by the '332 provisional application. Appellants, therefore, respectfully submit that the Examiner's rejection based upon the '332 provisional application is incomplete.

Examiner has failed to properly construe the claimed invention

On page 2 of the Fourth Office Action, the Examiner asserted the following with regard to claims 1 and 13:

> Claims 1, and 13, recite "*for*" (i.e. *for* invoking.... *For providing... for* causing) constitute intended use of the claimed invention. Claims must result in a structural difference between the claimed invention and the prior art in order to be patentable, therefore, recitation following the "**for**" carry no patentable weight. Claims should be amended to recite more direct positive language such as "to", "that", "of", "which", or "invoking".

Appellants use of the term "for" is to connect a capability of a particular element with a particular function. For example, the limitation of "said database proxy driver having a configuration for invoking at least one auxiliary task" requires the database proxy driver to have a particular configuration (i.e., structure), which allows the database proxy driver to perform a particular function (i.e., invoke at least one auxiliary task). It is well established by the Courts that functional limitations are appropriate in claims and should be afforded patentable weight by an Examiner in a prior art rejection.[6] Therefore, the Examiner has improperly failed to give patentable weight to these limitations. Moreover, since the Examiner has admitted to not giving patentable weight to these limitations and since, as discussed in more detail below, the Examiner has not even attempted to specifically identify where within McHenry these limitations are disclosed, Appellants submit that the Examiner has failed to establish a prima facie case of anticipation.

The Examiner further asserted the following in the first full paragraph on page 3 of the Fourth Office Action:

> Claim 1, line 3, recite, "can be" which is passive and suggest optionally never having to take place, and therefore which renders any recitation claimed after not be given patentable weight

Appellants respectfully disagree with this analysis. The phrase "can be," as used within the limitation "a first exposed interface through which access to a database server can be provided" connotes capability.

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[6] In re Mills, 916 F.2d 680, 16 USPQ2d 1430 (Fed. Cir. 1990); In re Ludtke, 441 F.2d 660, 169 USPQ 563 (CCPA 1971). A discussion of the patentability of functional limitations is also found in M.P.E.P. § 2173.05, entitled "Functional Limitations."

To analogize the use of the phrase "can be" in addition to "for," consider the following example claims directed to the common screw.

1. A fastener comprising:

a tapering body having spiraling ridges; and

a head connected to the tapering body and having a top surface through which a releasable connection to a tip of a screw driver can be provided.

2. A fastener comprising:

a tapering body having spiraling ridges; and

a head connected to the taper body and having a top surface, wherein

the top surface for receiving the tip of a screw driver.

In both of the above example claims, the top surface is claimed as having the capability of receiving a tip of a screw driver, which results in a positive recitation of a structural feature. Thus, Appellants submit that the Examiner has improperly construed claim 1 so as to not give patentable weight to the limitations associated with the phrase "can be." Moreover, since the Examiner has admitted to not giving patentable weight to this limitation and since, as discussed in more detail below, the Examiner has not even attempted to specifically identify where within McHenry this limitation is disclosed, Appellants submit that the Examiner has further failed to establish a prima facie case of anticipation.

Examiner has failed to particularly identify, within McHenry, the teachings that allegedly disclose each of the elements of the claimed invention

In the present Fourth Office Action, the Examiner has continued the theme present in the prior Office Actions of neither clearly designating the teachings in applied prior art being relied upon nor clearly explaining the pertinence of applied prior, as required by 37 C.F.R. § 1.104(c).[7]

With regard to claim 1, the Examiner's analysis found on page 5 of the Fourth Office Action is as follows:

> [claim language reproduced] (See Figure 1, and page 3, paragraph 0030);
> [claim language reproduced] (See Figure 1, shows the network distribution, and see Figure 3, shows edge server caching and storing various database multi proxy agent); and
> [claim language reproduced] (See page 4, paragraph 0040).

As readily evident from the "analysis" reproduced above, the Examiner has failed to specifically identify within McHenry any of the claimed limitations. Claim 1 recites, in part, the following features: (i) universal database connectivity driver; (ii) database server; (iii) database proxy driver; and (iv) database driven application. For ease of reference, referring to Fig. 1 of Appellants' disclosure, these features are illustrated as follows: (i) universal database connectivity driver (e.g., Data Access Middleware 180); (ii) database server (e.g., Back End DB 190); (iii) database proxy driver (e.g., Data Access Middleware Proxy 170); and (iv) database driven application (e.g., Application 160). Upon reviewing Figures 1 and 3 of McHenry, which were specifically cited by the Examiner, Appellants note that at least twenty different elements

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[7] 37 C.F.R. § 1.104(c) provides:

> In rejecting claims for want of novelty or for obviousness, the examiner must cite the best references at his or her command. When a reference is complex or shows or describes inventions other than that claimed by the applicant, the particular part relied on must be designated as nearly as practicable. The pertinence of each reference, if not apparent, must be clearly explained and each rejected claim specified.

are shown, yet the Examiner's analysis does not indicate what elements taught by these figures correspond to the claimed elements.

As another example, claim 1 further recites a first exposed interface and a second exposed interface, which conforms to the first exposed interface. These elements were purportedly disclosed by Figure 1 and Figure 3 and paragraph [0030], but these figures and the cited passage do not discuss interfaces at all. As such, Appellants are entirely unclear as to how McHenry discloses these elements.

Appellants, therefore, respectfully submit that the Examiner has failed to establish a prima facie case of anticipation within the meaning of 35 U.S.C. § 102 in rejecting claims 1-2, 4-7, 9-10, 13-14, and 16-17 based upon McHenry.

Conclusion

Based upon the foregoing, Appellants respectfully submit that the Examiner's rejections under 35 U.S.C. §§ 101, 102 is not viable. Appellants, therefore, respectfully solicit the Honorable Board to reverse the Examiner's rejections under 35 U.S.C. §§ 101, 102.

To the extent necessary, a petition for an extension of time under 37 C.F.R. § 1.136 is hereby made. Please charge any shortage in fees due under 37 C.F.R. §§ 1.17, 41.20, and in connection with the filing of this paper, including extension of time fees, to Deposit Account 09-0461, and please credit any excess fees to such deposit account.

Date: November 7, 2006   Respectfully submitted,

                                          /Scott D. Paul/
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VIII. CLAIMS APPENDIX

1. A database access system comprising:

a universal database connectivity driver having a first exposed interface through which access to a database server can be provided;

a database proxy driver registered with said universal database connectivity driver, said database proxy driver having a second exposed interface which conforms with said first exposed interface of said universal database connectivity driver, said database proxy driver having a configuration for invoking at least one auxiliary task in addition to providing access to said database server through said first exposed interface of said universal database connectivity driver; and,

a database driven application programmatically linked to said database proxy driver.

2. The database access system of claim 1, wherein each of said universal database connectivity driver, database proxy driver and database driven application are disposed in an edge device in a computer communications network.

4. The database access system of claim 1, wherein said auxiliary task is caching.

5. The database access system of claim 1, further comprising:

a log file of data request meta-information; and,

an application analyzer configured to tune operation of said auxiliary task based upon said meta-information.

6. A database access method, the method comprising:

receiving a database connectivity request through a corresponding first exposed database connectivity method from a database driven application;

forwarding said database connectivity request to an underlying database connectivity driver through a corresponding second exposed method having a method prototype which matches a method prototype of said first exposed database connectivity method; and,

performing at least one auxiliary task in addition to forwarding said database connectivity request.

7. The database access method of claim 6, further comprising performing each of the receiving, forwarding and performing steps in an edge device.

9. The database access method of claim 7, wherein said performing step comprises performing a database caching task.

10. The database access method of claim 6, further comprising:

collecting meta-data for each received database connectivity request; and,

modifying operation of said auxiliary task based upon an analysis of said collected meta-data.

13.   A machine readable storage having stored thereon a computer program for providing database access, the computer program comprising a routine set of instructions for causing the machine to perform the steps of:

receiving a database connectivity request through a corresponding first exposed database connectivity method from a database driven application;

forwarding said database connectivity request to an underlying database connectivity driver through a corresponding second exposed method having a method prototype which matches a method prototype of said first exposed database connectivity method; and,

performing at least one auxiliary task in addition to forwarding said database connectivity request.

14.   The machine readable storage of claim 13, further comprising performing each of the receiving, forwarding and performing steps in an edge device.

16.   The machine readable storage of claim 14, wherein said performing step comprises performing a database caching task.

17.   The machine readable storage of claim 13, further comprising:

collecting meta-data for each received database connectivity request; and,

modifying operation of said auxiliary task based upon an analysis of said collected meta-data.

IX. EVIDENCE APPENDIX

No evidence submitted pursuant to 37 C.F.R. §§ 1.130, 1.131, or 1.132 of this title or of any other evidence entered by the Examiner has been relied upon by Appellants in this Appeal, and thus no evidence is attached hereto.

X. RELATED PROCEEDINGS APPENDIX

Since Appellants are unaware of any related appeals and interferences, no decision rendered by a court or the Board is attached hereto.